

Notice of Allowability

Application No.

10/773,062

Applicant(s)

O'BRIEN, MICHAEL
CHRISTOPHER

Examiner

JOHN PAK

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-5, 7-8, 10-12, 15-20 [Renumbered as 1-16].
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

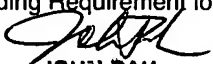
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 5/13/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 04242006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


JOHN PAK
PRIMARY EXAMINER
GROUP 1600

Claims 1-20 are pending in this application.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Sutter on 4/25/2006.

Cancel claims 6, 9 and 13-14.

Claim 1. (Currently amended) A method of treating livestock hooves for reducing or treating bacterial infections of the hooves comprising:

providing an aqueous footbath solution comprising 10 to 35 pounds of an alkali metal bisulfate per 50 gallons of water, wherein the pH of the solution is less than about 4; and

leading a livestock animal to walk through the aqueous footbath solution to immerse the hooves in the solution.

Claim 4. (Currently amended) A method according to claim 1, wherein the alkali metal bisulfate kills bacteria in the aqueous footbath solution.

Claim 5. (Currently amended) A method according to claim 1, wherein the alkali metal bisulfate kills bacteria on the hooves of the livestock.

Claim 7. (Currently amended) A method according to claim 1, wherein the alkali metal bisulfate reduces the pH of the aqueous footbath solution to less than about 3.

Claim 8. (Currently amended) A method according to claim 1, wherein the alkali metal bisulfate is effective for between about 250 and about 400 livestock uses of the footbath to keep the pH of the solution at a level less than about 4.

Claim 10. (Currently amended) A method according to claim 1, wherein the alkali metal bisulfate is present in the aqueous footbath solution at a level between about 15 pounds and about 25 pounds of alkali metal bisulfate per 50 gallons of water.

Claim 11. (Currently amended) A method according to claim 1, wherein the alkali metal bisulfate contains less than about 0.01 wt% heavy metals.

Claim 12. (Currently amended) A method according to claim 11, wherein the alkali metal bisulfate contains less than about 0.003 wt% heavy metals.

Claim 15. (Currently amended) A method of treating livestock hooves for reducing or treating bacterial infections of the hooves comprising:

providing an aqueous footbath solution comprising 10 to 35 pounds of an alkali metal bisulfate per 50 gallons of water in admixture with an additional agent effective for reducing or treating bacterial infections of the hooves, wherein the pH of the solution is less than about 4; and

leading a livestock animal to walk through the aqueous footbath solution to immerse the hooves in the solution.

Claim 17. (Currently amended) A method according to claim 15, wherein said additional agent is copper sulfate and/or zinc sulfate.

Claim 18 (Currently amended). A method of treating livestock hooves for reducing or treating bacterial infections of the hooves comprising:

(1) providing a first aqueous footbath solution comprising 10 to 35 pounds of an alkali metal bisulfate per 50 gallons of water, wherein the pH of the solution is less than about 4;

(2) providing a second aqueous footbath solution comprising an agent effective for reducing or treating bacterial infections of the hooves, wherein said agent is not alkali metal bisulfate; and

(3) leading a livestock animal to walk through either the first aqueous footbath solution or the second aqueous footbath solution to immerse the hooves in the solution, and then rotating with the other aqueous footbath solution the next time the livestock animal is in need of a footbath treatment.

Claim 20. (Currently amended) A method according to claim 18, wherein said agent is copper sulfate and/or zinc sulfate.

The following is an examiner's statement of reasons for allowance: Bacterial diseases of the hooves of livestock animals have serious economic impact (see e.g., Drake, Hauptmeier). Infected or lame livestock animals suffering from such diseases

must be detected, separated, treated and/or culled, draining labor resources as well as reducing agricultural value.

Although footbath solutions have long been used in this field to reduce or treat such diseases (e.g., Ames, Kemp et al., Hauptmeier), livestock animals continue to suffer from bacterial diseases of the hooves. Applicant's invention provides an effective and convenient method of treating livestock animals for reducing or treating bacterial diseases of the hooves. Although Derwent abstract 1993-263107 discloses similar compositions (2.13% **ammonium** hydrogen sulfate + other ingredients, no footbath disclosed), applicant's claims require the footbath use of **alkali metal** bisulfate in at least about 2.4 w/v% (equivalent to the lowest claimed amount of 10 pounds per 50 gallons), wherein the pH of the footbath solution is less than about 4. The prior art taken as a whole fails to adequately disclose or suggest such features. There is insufficient motivation to substitute this reference's ammonium bisulfate, which is used in conjunction with another ammonium compound, with alkali metal bisulfate and to further modify by leading livestock animals to walk through the aqueous footbath solution to immerse their hooves in the footbath solution. In view of the disclosed additional benefit of being mild on the hooves and skin of the livestock (specification page 3, lines 20-28), the claimed invention, as a whole, is deemed to be patentable over the prior art.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Sreeni Padmanabhan, can be reached on **(571)272-0629**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

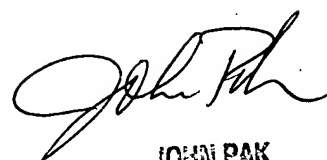
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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